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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,823

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Po-Chun Chen

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07/14/2005

NORTH AMERICA INTERNATIONAL PATENT OFFICE (NAIPC)

P.O. BOX 506

MERRIFIELD, VA 22116

EXAMINER

LE, DINH THANH

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,823

Applicant(s)

CHEN, PO-CHÜN

Examiner

DINH T. LE

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections

Claim Rejections - 35 USC § 112

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction or clarification is required.

In claim 1, the recitation "the immediately previous clock generator" on line 18, "the front set circuit" on line 21, "the middle set circuit" on line 24 lacks clear antecedent basis. It is unclear what the recitation "M" is since it is not clearly defined in this claim, and how the recitation "(M-3)/2 serially connected first sets of clock generators" and "the immediately previous clock generator" is read on the preferred embodiment. Insofar as understood, no such clock generators can be determined on the drawings.

In claim 7, it is unclear what the recitation "k1", "k2" and "n" are since they are not clearly defined in this claim, how the K1 and K2 can be "determined" according to the n and the trigger phase.

In claim 19, the recitation "the initial status" on line 6 lacks clear antecedent basis and "if" on lines 6 and 12 is indefinite because it does not positively recite the claimed invention. It

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is not understood what “the initial status” is, how the trigger phase can be “selected” and modified on line 4, how the initial status can be “determined”, and how the recitation “determining steps”, “selecting step” and “modifying step” are read on the preferred embodiment or seen on the drawings.

In claim 21, it is unclear what the “n” is since it is not clearly defined in this claim. The recitation “positive dividing circuit” on line 15 and “plurality of clock generators” on line 18 is confusing because it is unclear if this is additional “dividing circuit” and “generators” or further recitation of the previously claimed “dividing circuit” on line 9 and “generators” on line 12. Also, it is unclear how the dividing factor can be “determined”, how the clock can be “corresponded”, how the dividing circuit can be “selected”, how the target clock can be “generated” and how the recitation “determining step” and “selecting steps” are read on the preferred embodiment or seen on the drawings.

The remaining claims are dependent from the above claims and therefore also considered indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19-21 are rejected under 35 USC 102 (b) as being anticipated by Lee et al (6,356,123).

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As the best construed, Lee et al discloses in Figures 1-12 a frequency divider comprising a positive dividing circuit (15) for generating a first target clock, a negative dividing circuit (20) for generating a second target clock and a synthesizer (30) for generating a target clock responsive to the first and second target clock. The divider of Lee et al is designed comprising the steps of:

- determining a dividing factor such as 1.5, 2 or 3, see line 1-6, column 4;
- selecting a positive dividing circuit (20) and a negative dividing circuit (22) are selected by trigger phase from an oscillator (13) and the dividing factor, see lines 7-33, column 4;
- generating a target clock by the synthesizer (30); and
- wherein the trigger phase and the modified trigger phase are between 0 degree and 360 degrees by the oscillator (13).

Allowable Subject Matter

Claims 1-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The claims are allowed because the prior art of record does not show the rear set circuit as combined in claims 1 and the middle set circuit having $k1$ serially being connected first sets of clock generators and $n-k1-1$ serially being connected second sets of clock generators as combined in claim 7.


Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745. The examiner can normally be reached on Monday-Friday (8AM-7PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY CALLAHAN can be reached at (571) 272-1740.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DINH T. LE
PRIMARY EXAMINER